EXHIBIT B

UNITED STATES DISTRICT COURT EASTERN DISTRICT OF MICHIGAN SOUTHERN DIVISION

IMRA AMERICA, INC., a Michigan corporation,) Case No.: 2:06-cv-15139
Plaintiff/Counterdefendant, v. IPG PHOTONICS CORPORATION, a Delaware corporation,)) Judge: Hon. Anna Diggs Taylor) Magistrate: Hon. Mona K. Majzoub))
Defendant/Counterclaimant.))
AND RELATED COUNTERCLAIMS.))

JOINT CLAIM CONSTRUCTION STATEMENT

In accordance with the Court's Amended Scheduling Order, the parties submit the Joint Claim Construction Statement with their respective proposed claim constructions for certain claim terms in U.S. Patent No. 5,818,630. (Exhibit A.)

Respectfully submitted by,

Dated: December 7, 2009

DICKINSON WRIGHT, PLLC

By: s/John A. Artz

John A. Artz (P24679

jaartz@dickinsonwright.com

38525 Woodward Avenue, Suite 2000 Bloomfield Hills, Michigan 48304-2970

Telephone: (248) 433-7200 Facsimile: (248) 433-7274

Attorneys for Plaintiff IMRA AMERICA, INC.

Dated: December 7, 2009 KOHN & ASSOCIATES PLLC

By: s/Barbara L. Mandell

Barbara L. Mandell (P36437) bmandell@comcast.net Kohn & Associates, PLLC

30500 Northwestern Highway, Suite 410

Farmington Hills, MI 48334-3179

Telephone: (248) 539-5050 Facsimile: (248) 539-5055

Attorneys for Defendant

IPG PHOTONICS CORPORATION

CERTIFICATE OF SERVICE

I certify that on December 7, 2009, I electronically filed the foregoing Joint Claim Construction Statement using the ECF system which will send notification to the attorneys of record.

Karen Hopf

Page 5 of 14 Page 1 of 3

Case 2:06-cv-15139-ADT-MKM

Document 78 Filed 12/07/2009

UNITED STATES DISTRICT COURT EASTERN DISTRICT OF MICHIGAN SOUTHERN DIVISION

the property of the property o	
IMRA AMERICA, INC., a Michigan corporation,	Case No.: 2:06-cv-15139
Plaintiff/Counterdefendant, v. IPG PHOTONICS CORPORATION, a Delaware corporation,)) Judge: Hon. Anna Diggs Taylor) Magistrate: Hon. Mona K, Majzoub)
Defendant/Counterclaimant.))
AND RELATED COUNTERCLAIMS.)

JOINT CLAIM CONSTRUCTION STATEMENT

Document 81-4

Filed 12/08/2009

Page 6 of 14

Case 2:06-cv-15139-ADT-MKM

Document 78

Filed 12/07/2009

Page 2 of 3

In accordance with the Court's Amended Scheduling Order, the parties submit the Joint Claim Construction Statement with their respective proposed claim constructions for certain claim terms in U.S. Patent No. 5,818,630. (Exhibit A.)

Respectfully submitted by,

Dated: December 7, 2009

DICKINSON WRIGHT, PLLC

By: s/John A. Artz

John A. Artz (P24679

jaartz@dickinsonwright.com

38525 Woodward Avenue, Suite 2000 Bloomfield Hills, Michigan 48304-2970

Telephone: (248) 433-7200 Facsimile: (248) 433-7274

Attorneys for Plaintiff IMRA AMERICA, INC.

Dated: December 7, 2009

KOHN & ASSOCIATES PLLC

s/Barbara L. Mandell By:

> Barbara L. Mandell (P36437) bmandell@comeast.net Kohn & Associates, PLLC

30500 Northwestern Highway, Suite 410

Farmington Hills, MI 48334-3179

Telephone: (248) 539-5050 Facsimile: (248) 539-5055

Attorneys for Defendant

IPG PHOTONICS CORPORATION

CERTIFICATE OF SERVICE

I certify that on December 7, 2009, I electronically filed the foregoing Joint Claim Construction Statement using the ECF system which will send notification to the attorneys of record.

Karen Hopf

EXHIBIT A TO JOINT CLAIM CONSTRUCTION STATEMENT IMRA America, Inc. v. IPG Photonics Corporation Case No. 2:06-15139 (E. D. Mich.)

Claim 1	IPG's Proposed Construction	IPG's Supporting Evidence	IMRA's Proposed Construction	IMRA's Supporting Evidence
An optical amplification system, comprising:				
a laser source generating an input beam having a nearly diffraction limited				
mode; a <u>multi-mode fiber</u> amplifter;	The parties agree that the tamplifying an input beam.	The parties agree that the term "multi-mode fiber amplifier" amplifying an input beam.	<u> </u>	e fiber capable of
	The parties further agree the than 2.41, where	hat the term " <i>multi-mode fu</i>	The parties further agree that the term "mulfi-mode fiber" ² means an optical fiber with a V-value greater than 2.41, where	with a V-value greater
	$V = \frac{2\pi a}{\lambda} NA$			
	a is the core radius of the opt wavelength of the input beam	optical fiber, NA is the coream.	radius of the optical fiber, NA is the core numerical aperture of the fiber, and λ is the signal fathe input beam.	fiber, and λ is the signal
a mode converter	The term "mode	Intrinsic evidence:	The term "mode	Intrinsic evidence:
receiving the input beam	converter" means an	'630 Patent	converter" means an	'630 Patent, including
of the input beam to	such as a lens system, a	1:43-60	matching the mode of a	6:33-44
match a fundamental	section of tapered fiber,	2:1-7	multi-mode amplifier	6:54-57
mode of the multi-mode	or a combination	3.9-21	fiber.	7:6-14
fiber amplifier, and	thereof, capable of	3:34-44		7:47-51
providing a mode-	matching the mode of a	3:45-47		9:24-30

¹ This term also appears in dependent claims 10-12, 27, 28, 36, 39, 46, 47, 48, 49. ² This term also appears in dependent claim 31.

EXHIBIT A TO JOINT CLAIM CONSTRUCTION STATEMENT IMRA America, Inc. v. IPG Photonics Corporation Case No. 2:06-15139 (E. D. Mich.)

the Commission of Advances and Commission of	٠,	Case 1 (C. 2.00-1.11.) (L. D. 1410)		h, produced provide the control of t
	IPG's Proposed	IPG's Supporting	IMRA's Proposed	IMRA's Supporting
	Construction	Evidence	Construction	Evidence
converted input beam to	multi-mode fiber	6:6-13		10:1-10
said multi-mode fiber	amplifier,	6:54-57		10:19-40
amplifier; and		7:47-51	and the second s	10:49-52
	The term "converting the	9:24-30	The term "converting the	11:39-46
	mode of the input beam	0.1.0	mode of the input beam	12:20-23
	to match a fundamental	10:19-40	to match a fundamental	13:12-25
	mode of the multi-mode	10:49-52	mode of the multi-mode	13:52-61
	fiber amplifier" means	11:39-46	fiber amplifier" does not	14:18-26
	converting the mode of	12:20-23	need to be construed. It	FIGS. 1, 5, 6, 7, 9-12
	the input beam to cause	13:11-25	takes its ordinary	Abstract
TO ANDREW FOR	it to match a	13:52-61	meaning to a person of	Ex Parte Reexamination
***************************************	fundamental mode of the	14:18-26	ordinary skill in the art:	Certificate, U.S.
· · · · · · · · · · · · · · · · · · ·	multi-mode fiber	FIGS. 1, 5, 6, 7, 9-12	"converting the mode of	5,818,630 C1 at col. 1,
v namenta	amplifier.		the input beam to match	lines 21-27
D		'630 patent application	a fundamental mode of	the prosecution history
		(as filed) at 34	the multi-mode fiber	for '630 Patent and
· · · · · · · · · · · · · · · · · · ·	an and an and an	(IMRA000058).	amplifier."	Reexamination No.
not no col	Andrein years			90/008,971.
		Amendment dated June 1, 2009 in Reexam.		and and an analysis of the second
· milan haka	The term "mode-	Control No. 90/008,971	The term "mode-	Extrinsic evidence:
	converted input beam"	at 15-20, 35.	converted input beam"	IMRA does not concede
· · · · · · · · · · · · · · · · · · ·	means an input beam		does not need to be	or agree that it is
· ·	whose mode has been	Extrinsic evidence:	construed. It takes its	necessary or appropriate
	converted to match a	Tavemer at 378-9 (IPGI	ordinary meaning to a	to consider extrinsic
- San	fundamental mode of the	009341-IPGI 009343)	person of ordinary skill	evidence in connection
***************************************	multi-mode fiber		in the art: "mode	with interpreting this
	amplifier.	Nisoli at 189 (IPGI	converted input beam"	claim limitation; but
		007918-007923)		extrinsic evidence that
		Strasser at 348-349		proposed construction
	The state of the s			

EXHIBIT A TO JOINT CLAIM CONSTRUCTION STATEMENT IMRA America, Inc. v. IPG Photonics Corporation Case No. 2:06-15139 (F. D. Mich.)

A PERSONAL PARTICLE AND PROCESS AND		Case No. 2:06-15139 (E. D. Mich.		Antoniorente de State China de la constante de la composition della composition dell
Claim 1	IPG's Proposed Construction	IPG's Supporting Evidence	IMRA's Proposed Construction	IMRA's Supporting Evidence
managara mayang danggarang manamanan manaman aka maya a kabasa un aya sa ta ta tagasa na masa sa ta	And the second s	(IPGI 009329-IPGI	and a service to the second of	upon which IMRA may
		009330)		rely is testimony of Dr. Wayne H. Knox.
		Yang at 1044-45 (IMRA000178- IMRA000180)		
		Yang Thesis at 89-92 (IPGI007812-7815)		
		U.S. Patent No. 5,074,633 to Cohen at 1:50-68 (IMRA000259-64)		
		U.S. Patent No. 5,513,196 to Bischel at 17:4-57, 18:1-20, FIG. 8 (IPGI 009672-009691)		
		Declaration of Dr. Wayne Harvey Knox dated May 31, 2009, and filed in Reexam. Control No. 90/008,971 at 6-9.		
		Response to German Patent Office dated September 11, 2006 regarding IMRA America Patent		

EXHIBIT A TO JOINT CLAIM CONSTRUCTION STATEMENT *IMRA America, Inc. v. IPG Photonics Corporation*Case No. 2:06-15139 (F. D. Mich.)

Control of the state of the sta		Case No. 2:06-15139 (E. D. Mich.		h
Claim 1	IPG's Proposed	IPG's Supporting Fyidence	IMRA's Proposed	IMRA's Supporting Fyidence
TO STORY A LAW ARCHITECTURE CARROLL MANAGEMENT OF THE STORY OF THE STO		Application DE 19828154 at 2-6.	CORDER RECEDER	
		(IPGI 1401653-IPGI 1401675)		
		Response to German Patent Office dated March 29, 2007 regarding IMRA		
		America Patent Application DE 19828154 at 3 (IPGI 1401653-IPGI 1401675)		
		U.S. Patent No. 7,113,327 to Gu at 9:34-53, FIG. 8 (IMRA007837-53)		
		U.S. Patent No. 7,190,511 to Galvanauskas at 3:9-16, 5:51-66, 10:5-13 (IMRA008826-40)		
		Expert Report of Wayne H. Knox, Ph.D. on Infringement dated November 6, 2009 at 19-24, 34-36.		
CONTRACTOR OF THE CONTRACTOR O				

EXHIBIT A TO JOINT CLAIM CONSTRUCTION STATEMENT

Case 2:06-cv-15139-ADT-MKM

Document 78-2

Filed 12/07/2009

ረጎ

IMRA does not concede IMRA's Supporting the prosecution history '630 Patent including: Extrinsic evidence: for '630 Patent and Reexamination No. Intrinsic evidence: Evidence or agree that it is 90/008,971. FIGS, 1-4 6:45-7:46 14:27-33 16:18-25 13:12-25 Abstract 7: 6-14 10:1-18 5:19-28 8:43-65 6:6-17 beam substantially in the not need to be construed. fundamental mode does meaning to a person of ordinary skill in the art: IMRA's Proposed The term *an amplified* fundamental mode." It takes its ordinary "an amplified beam Construction substantially in the IMRA America, Inc. v. IPG Photonics Corporation Case No. 2:06-15139 (E. D. Mich.) Expert Report of Wayne November 6, 2009 at 24-IPG may rely further on IPG's Supporting Extrinsic evidence: Infringement dated Intrinsic evidence: a declaration of its H. Knox, Ph.D. on Evidence 27, 36-38, 45-46. expert Philip H. Bucksbaum. 630 Patent FIGS. 1-4 6:45-7:46 13:12-25 14:27-33 Abstract 8:43-65 10:1-18 4:23-25 5:19-28 4:36-43 4:5-13 6:6-17 beam substantially in the The term *an amplified* substantially all of its IPG's Proposed energy content in the Construction means an amplified fundamental mode. fundamental mode beam having amplifier providing at an to said multi-mode fiber a pump source coupled optically pumping said said multi-mode fiber amplifier, said pump substantially in the fundamental mode. multi-mode fiber output thereof an Claim 1 amplified beam amplifier,

EXHIBIT A TO JOINT CLAIM CONSTRUCTION STATEMENT *IMRA America, Inc. v. IPG Photonics Corporation*Case No. 2:06-15139 (E. D. Mich.)

	*>	Capp 140. 4:00 1717 (4. 1). 1411011.	C1.5.	L. C. Debut T. Debut T. C. Debut T.
The state of the s	IPG's Proposed	IPG's Supporting	IMRA's Proposed	IMRA's Supporting
Cam	Construction	Evidence	Construction	Evidence
ANN AND THE	and a second			necessary or appropriate
		Rebuttal Expert Report		to consider extrinsic
		of Wayne H. Knox,		evidence in connection
		Ph.D. on Invalidity		with interpreting this
		dated January 25, 2008		claim limitation; but
	Samuel Chief	at 40-44.		extrinsic evidence that
				supports IMRA's
		IPG may rely further on		proposed construction
		a declaration of its		upon which IMRA may
		expert Philip H.		rely is testimony of Dr.
		Bucksbaum.		Wayne H. Knox. See
				also Expert Report of
		nor a straightful for the		Philip H. Bucksbaum on
		A COMMISSION TO THE COMMISSION OF THE COMMISSION		invalidity dated
				December 21, 2007 at
	w Longitude	and h		11-13.

EXHIBIT A TO JOINT CLAIM CONSTRUCTION STATEMENT *IMRA America, Inc. v. IPG Photonics Corporation*Case No. 2:06-15139 (E. D. Mich.)

Claim 24	IPG's Proposed	IPG's Supporting IMRA's Proposed	IMRA's Supporting
	The next of order that	dayno	from one or more modes
THE OPTICAL	The parties agree that the	Cill mode filler illeans a ucyloc mar ichnoves chergy i	
amplification system	of a beam.		
according to claim 1,			
further comprising a	The parties agree that the t	igree that the term "mode-filtered beam" means a beam that has had energy removed from one	nergy removed from one
mode filter receiving the	or more of its modes by a mode filter.	mode filter.	
amplified beam and	Al-Andrica As Assistance		
providing a mode-	· · · · · · · · · · · · · · · · · · ·		
filtered beam.		TO THE PRODUCTION AND A CASE OF THE PRODUCTION O	The second secon

³ This term also appears in dependent claim 25.